

Claims

1. A printing apparatus comprising a head including a plurality of ink discharging portions provided in a juxtaposed relationship thereon and capable of deflecting a discharging direction of an ink droplet to be discharged from each of said ink discharging portions to a plurality of directions in the juxtaposition direction of said ink discharging portions, wherein:

a printing resolution is determined in response to inputted print data from between or among a plurality of printing resolutions with which said printing apparatus can print and which are determined from a juxtaposition distance of said ink discharging portions and a plurality of directions in which an ink droplet can be discharged from said ink discharging portions;

those of said ink discharging portions from which an ink droplet is to be discharged are selected based on the determined printing resolution and the discharging direction of an ink droplet from each of the selected ink discharging portions is determined; and

a discharge execution signal with which the discharging direction of an ink droplet can be specified is transmitted to each of the selected ink discharging

portions to execute printing with the printing resolution determined in response to the inputted print data from between or among the plurality of printing resolutions.

2. A printing apparatus comprising a head including a plurality of ink discharging portions provided in a juxtaposed relationship thereon and capable of deflecting a discharging direction of an ink droplet to be discharged from each of said ink discharging portions to a plurality of directions in the juxtaposition direction of said ink discharging portions and further capable of setting the discharging deflection angle of an ink droplet to be discharged from said ink discharging portions to a plurality of angles, wherein:

a printing resolution is determined in response to inputted print data from between or among a plurality of printing resolutions which are determined from a juxtaposition distance of said ink discharging portions, the discharging deflection angle of an ink droplet to be discharged from said ink discharging portions and a plurality of directions in which an ink droplet can be discharged from said ink discharging portions;

those of said ink discharging portions from which an ink droplet is to be discharged and the discharging deflection angle of an ink droplet to be discharged from

said ink discharging portions are selected based on the determined printing resolution and the discharging direction of an ink droplet from each of the selected ink discharging portions is determined; and

a discharge execution signal with which the discharging direction of an ink droplet can be specified is transmitted to each of the selected ink discharging portions to execute printing with the printing resolution determined in response to the inputted print data from between or among the plurality of printing resolutions.

3. A printing apparatus according to claim 1 or 2, wherein printing resolutions of said printing apparatus corresponding to inputted print data are determined in advance, and a printing resolution is determined in response to the inputted print data based on the determination.

4. A printing apparatus according to claim 1 or 2, wherein, where the resolution of the inputted print data is M , if said printing apparatus has $M \times n$ (n being a natural number) or $M \times 1/n$ as a printing resolution with which said printing apparatus can print, then the printing resolution is determined to $M \times n$ or $M \times 1/n$.

5. A printing apparatus according to claim 1 or 2, wherein, where the inputted print data includes

information of a resolution or a number of pixels together with information of a print size, the printing resolution is determined based on the information of the print size and the resolution or the information of the print size and the number of pixels.

6. A printing apparatus according to claim 1 or 2, wherein, in response to the inputted print data, part of the inputted print data is determined to a first printing resolution and the other part of the inputted print data is determined to a second printing resolution different from the first printing resolution.

7. A printing method in which a head including a plurality of ink discharging portions provided in a juxtaposed relationship thereon is used, wherein:

a discharging direction of an ink droplet to be discharged from each of said ink discharging portions can be deflected to a plurality of directions in the juxtaposition direction of said ink discharging portions;

a printing resolution is determined in response to inputted print data from between or among a plurality of printing resolutions with which said printing apparatus can print and which are determined from a juxtaposition distance of said ink discharging portions and a plurality of directions in which an ink droplet can be discharged

from said ink discharging portions;

those of said ink discharging portions from which an ink droplet is to be discharged are selected based on the determined printing resolution and the discharging direction of an ink droplet from each of the selected ink discharging portions is determined; and

a discharge execution signal with which the discharging direction of an ink droplet can be specified is transmitted to each of the selected ink discharging portions to execute printing with the printing resolution determined in response to the inputted print data from between or among the plurality of printing resolutions.

8. A printing method in which a head including a plurality of ink discharging portions provided in a juxtaposed relationship thereon is used, wherein:

a discharging direction of an ink droplet to be discharged from each of said ink discharging portions can be deflected to a plurality of directions in the juxtaposition direction of said ink discharging portions and besides the discharging deflection angle of an ink droplet to be discharged from said ink discharging portions can be set to a plurality of angles;

a printing resolution is determined in response to inputted print data from between or among a plurality of

printing resolutions which are determined from a juxtaposition distance of said ink discharging portions, the discharging deflection angle of an ink droplet to be discharged from said ink discharging portions and a plurality of directions in which an ink droplet can be discharged from said ink discharging portions;

those of said ink discharging portions from which an ink droplet is to be discharged and the discharging deflection angle of an ink droplet to be discharged from said ink discharging portions are selected based on the determined printing resolution and the discharging direction of an ink droplet from each of the selected ink discharging portions is determined; and

a discharge execution signal with which the discharging direction of an ink droplet can be specified is transmitted to each of the selected ink discharging portions to execute printing with the printing resolution determined in response to the inputted print data from between or among the plurality of printing resolutions.